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22850 7590 12/27/2007 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET			EXAMINER	
			TYNAN, MATTHEW	
ALEXANDRIA, VA 22314			ART UNIT	PAPER NUMBER
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## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Advisory Action Before the Filing of an Appeal Brief

Application No.	Applicant(s)		
10/539,806	LEBRUN ET AL.		
Examiner	Art Unit	_	
Matthew Tynan	2871		

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --THE REPLY FILED 21 November 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. 1. X The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods: a) The period for reply expires <u>3</u> months from the mailing date of the final rejection. b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f). Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). NOTICE OF APPEAL 2. The Notice of Appeal was filed on . A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a). **AMENDMENTS** 3. 🔲 The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because (a) They raise new issues that would require further consideration and/or search (see NOTE below); (b) They raise the issue of new matter (see NOTE below): (c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or (d) They present additional claims without canceling a corresponding number of finally rejected claims. NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)). 4. The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324). 5. Applicant's reply has overcome the following rejection(s): \_\_\_\_\_ 6. Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s). 7. Torpurposes of appeal, the proposed amendment(s): a) will not be entered, or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended. The status of the claim(s) is (or will be) as follows: Claim(s) allowed: Claim(s) objected to: Claim(s) rejected: Claim(s) withdrawn from consideration: \_\_\_\_\_. **AFFIDAVIT OR OTHER EVIDENCE** 8. The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e). 9. The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1). 10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached. REQUEST FOR RECONSIDERATION/OTHER 11. A The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet. 12. Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_ 13. ☐ Other: .

Continuation of 11. does NOT place the application in condition for allowance because: The arguments made by the applicant are not persuasive. See the attached Response to Arguments.

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## Response to Arguments

- 1. Applicant's arguments filed 11/21/2007 have been fully considered but they are not persuasive. Regarding the rejection of claims 11-13 and 15-17 under 35 U.S.C. 103(a) as being unpatentable over Walker et al. (U.S. 2002/0024628) in view of Huang et al. (U.S. 2002/0071085) and Ohno (U.S. 4,600,273), the applicant makes several arguments.
- 2. The applicant argues (pg. 2-3) that Walker et al. teaches a projecting portion of the semiconductor substrate including various elements such as cross-over material 170 and radio chips 500. The examiner notes that radio chip 500 is an exemplary additional element that is by no means necessarily included in the device disclosed by Walker et al. Furthermore, the cross-over material 170 is exactly the kind of conductive paste (see [0072]) that the conducting elements in the seal taught by Ohno are designed to replace. One of ordinary skill in the art would have recognized the utility of using conductive elements in the seal instead of the cross-over material used in Walker et al. since Ohno teaches (see col. 1) that the conductive pastes often result in failure while conductive seal elements provide more reliable electrical connections. The teachings of Ohno eliminate the need for cross-over material 170.
- 3. Huang et al. eliminates the need for pads 405 on the outcrop portion of the semiconductor substrate by providing electrical connections on the transparent substrate. This modification is advantageous in that a UV-cured resin can be used to attach external driving circuitry because a glass substrate is transparent, in contrast to the semiconductor substrate.
- 4. The applicant alleges (pg. 3) that the modifications suggested by the examiner constitute "a major redesign of the method and device of Walker where the resulting device cannot operate as intended by Walker." The examiner respectfully disagrees. The modifications suggested by

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the references Huang et al. and Ohno merely relocate electrical connections to external driving devices from the semiconductor substrate to the glass substrate and the electrical connection between the substrates from outside the sealing material to inside the sealing material. These modifications do not appear to significantly affect the operation of the device or method except insofar as they achieve the advantages taught by Huang et al. and Ohno.

- 5. The applicant argues (pg. 4, second paragraph) that one of ordinary skill in the art would not have eliminated excess portions of the substrates. However, the examiner has previously noted the desire of those in the art to reduce the size, weight, and cost of LCD displays. The substrates of Walker et al. (e.g. Fig. 36), Huang et al. (e.g. Fig. 7), and Ohno (e.g. Fig. 7) illustrate the effect of this desire, which is that substrates are cut close to the sealing material except at portions where external electrical connections are made.
- 6. The applicant further argues (pg. 4-5) that Huang et al. paragraph [0049] suggests extending metal lines away from the frame seal so that conductive ITO traces do not disturb the transparency of the glass substrate. The examiner disagrees and has transposed entirety of the paragraph referenced by the applicant:

As shown in FIG. 8, a present invention flat panel display module 100 is formed by a silicon substrate 82, a glass substrate 88, and a liquid crystal material 90 filled therein-between and retained by a frame seal 92, i.e. a sealing adhesive for bonding the two substrates together. On top of the silicon substrate, is provided a multiplicity of metal leads 86, also shown in FIG. 6. On top of the glass substrate 88, is provided a multiplicity of transparent conductive traces 94, or ITO traces. The transparent conductive traces 94 are utilized such that the transparency of the glass substrate 88 is

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not disturbed in any way so that the flat panel display module 100, during its assembly, can be optically aligned from the side of the glass substrate by using a conventional alignment apparatus of CCD. [emphasis added]

- 7. This teaching does not suggest that metal lines on the silicon substrate are necessarily placed far away from the frame seal, as alleged by the applicant. It merely notes that transparent ITO material is used to make electrical connections on the glass substrate in order to maintain the transparency of the glass substrate. The teachings of Ohno in no way contradict this, since Ohno uses ITO traces on both substrates in order to make the electrical connection between the substrates.
- 8. Regarding the rejection of claims 18-21, 23, and 24 as being unpatentable over Huang et al. in view of Ohno, the applicant makes two arguments.
- 9. The applicant argues (pg. 7, 1<sup>st</sup> paragraph) that the limitations require that there is no part of the second silicon substrate that extends any significant distance from the contour of the sealing frame, and that neither Huang et al. nor Ohno suggest this. However, the examiner points to Fig. 7 of Huang et al., which shows three sides of the silicon substrate are cut along the sealing frame 92. The fourth side is where the electrical connections are made between the substrates, and so the silicon substrate is not cut close to the seal so that electrical connections extending beyond the seal can exist. However, Ohno teaches that it is desirable to form these electrical connections between the substrates inside the sealing material. If the electrical connections were moved from outside the sealing material to inside the sealing material, as taught by Ohno, one of ordinary skill in the art would have been motivated to cut the silicon

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substrate close to the sealing material on this fourth side as well because of the reduction in size and weight provided by this cutting.

10. The applicant again argues about the teachings of Huang et al. in paragraph [0049]. As discussed above, these teachings do not necessitate forming conductive traces well away from the seal. The conductive traces of Huang et al. do not extend to the seal because electrical connection (e.g. 104, Fig. 9) is made outside the sealing material. However, the teaching of Ohno suggests making the electrical connection between the substrates inside the sealing material, and shows that the ITO traces made for electrical connection extend to the sealing material. Therefore, this argument is not persuasive.

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